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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,924	10/02/2000	Shy Cohen	13768.604.7	3782

7590 04/05/2007
RICK D. NYDEGGER
WORKMAN NYDEGGER
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84111

EXAMINER

NGUYEN, HAI V

ART UNIT	PAPER NUMBER
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2142

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/676,924

Applicant(s)

COHEN, SHY

Examiner

Hai V. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,8-13,15-20,22 and 23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,4,6,8-13,15-20,22 and 23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the communication received on 26 January 2007.
2. Claims 3, 5, 7, 14, 21 were cancelled.
3. Claims 1, 2, 4, 6, 8-13, 15-20, 22 and 23 are presented for examination.

Response to Arguments

4. Applicant's arguments, see Applicant's remarks, pages 8-9 filed on 26 January 2007, with respect to the rejection(s) of claim(s) 1, 13, 20 under 35USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Masters US patent # 6,374,300, Hesselink et al. US patent # 7,120,892 B2.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:
6. There is no support in the specification for the elements of "transmitting a first parked HTTP-based "request" from the first processor to be parked at the second processor for establishing a persistent communication channel between the first processor and the second processor through the proxy server to allow the transfer of second messages from the second processor to the first processor, and the delivery of second message delivery acknowledges from the first processor to the second processor, and wherein the first HTTP-based "request" includes therein a request that

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the second processor transmits a reply after the expiration of the a time period even if there are no messages to send to the first processor so that the first processor can assess a status of the connection thereto; receiving a first HTTP-based "reply" from the second processor to the first processor in response to the first parked HTTP-based "request"; in response to receiving the first HTTP-based "reply", transmitting a second parked HTTP-based "request" via the proxy server to the second processor, the second parked HTTP-based "request" including an acknowledgment to the first HTTP-based "reply" in order to maintain the persistent HTTP connection between the first processor and the second processor through the proxy server, and wherein the second parked HTTP-based "request" includes therein a request that the second processor transmits a reply after the expiration of the a time period even if there are no messages to send to the first processor in order to ensure persistent connectivity between the first and second processor" in claim 1;

The elements of "allowing the client to include the connection time out period in a parked HTTP-based "request" sent from the client to be parked at the server for requesting a HTTP-based "reply" from the server after expiration of the connection time out period even if there are no messages to send to the client in order to avoid connection termination by the proxy server due to communication inactivity" in claim 13 and

The element of "...after the expiration of the new connection time out period even if there are no messages to send to the client..." in claim 16.

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The element of “transmitting a second parked HTTP-based request to the server via... and after the expiration of the connection time out period if there are no message to send to the client” in claim 17.

The element of “transmitting a third parked HTTP-based request to the server via... and after the expiration of the new connection time out period if there are no message to send to the client” in claim 18.

The elements of “receiving a second HTTP-based request including a message acknowledgement from the client through the proxy server acknowledging the receipt of the HTTP-based “reply” and also including a second connection time out period; and parking the second HTTP-based request without responding thereto unless a message is generated that needs to be transmitted to the client or unless the second connection time out period expires, the parking the second HTTP-based request maintaining the persistent connection from the client through the proxy server” in claim 20.

Applicant's specification describing in the figure 4 that the parking of an HTTP request at the server establishes a connection setup phase 232 of this inbound communication channel 210. The parked request enables the server 202 to reply to the client 204 whenever the server 202 has a message that needs to be sent. During this communication 234, the server 202 sends 236 an HTTP reply with the message content to the web proxy 200,....In response to the receipt of this reply, the client 204 will send 240 a delivery acknowledgement as an HTTP request to the web proxy 200,...This acknowledgement will act as the parked request to which the server may then respond with the next message whenever the server 202 generates such a message, (page 17,

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line 16 – page 18, line 12); Likewise, the client-generated HTTP message acknowledgement is embodied in a HTTP request that serves to acknowledge that the previous message was successfully delivered, and serves as a parked request. This newly parked request once again allows the server 202 to transmit messages to the client 204 as soon as they are generated within the server 202, (page 18, lines 14-22); The instant invention periodically retransmits the HTTP request 228, 230 to ensure that server 202 has a parked request to which it may response whenever messages are generated therein, (page 19, lines 15-17); the client generated request that is sent to and parked at the server may include a request that the server send a reply after a period of time. In response to this reply, the client will again send a request that will remain parked at the server until it has a message to send, or until the suggested time for transmission of a reply to avoid proxy connection closure (page 20, lines 3-21).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 2, 4, 6, 13, 16, 17, 18, 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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9. The claims 1, 2, 4, 6, 13, 16, 17, 18, 20 contain the elements of *"a first parked HTTP-based request", "a second parked HTTP-based request", "a third parked HTTP-based request", "even if there are no messages to send to the client so that the first processor can assess a status of the connection thereto", "even if there are no messages to send to the client", "if there are no messages to send to the client", "parking the second HTTP-based request without responding thereto unless a message is generated that needs to be transmitted to the client or unless the second connection time out period expires, the parking the second HTTP-based request maintaining the persistent connection from the client through the proxy server"* which were not described in such a way to convey to one of ordinary skill in the computer network art that the claimed invention was originally filed.

10. Claims 1, 13, 16, 17, 20 contain the negative limitation.

11. Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("*[the] specification, having described the whole, necessarily described the part remaining.*"). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff 'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Note that a lack of literal basis in the specification for a negative limitation may not be sufficient to

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establish a *prima facie* case for lack of descriptive support. *Ex parte Parks*, 30 USPQ2d 1234, 1236 (Bd. Pat. App. & Inter. 1993). See MPEP § 2163 - § 2163.07(b) for a discussion of the written description requirement of 35 U.S.C. 112, first paragraph.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 2, 4, 6, 8-13, 15-20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Masters** US patent # **6,374,300** and in view of **Hesselink et al.** US patent # **7,120,892 B2**.

14. As to claim 1, Masters discloses the method comprising:

transmitting a first HTTP-based "request" from the first processor (*Fig. 8, client 272*) to the second processor (*Fig. 1, server 274*) for establishing a first communication channel between the first processor and the second processor through the proxy server (*Fig. 1, proxy 270*) to allow the transfer of first messages from the first processor to the second processor, and the delivery of first message delivery acknowledgments from the second processor to the first processor (*Fig. 8, col. 13, line 50 col. 14, line 44*);

transmitting a first parked HTTP-based "request" from the first processor to be parked at the second processor for establishing a persistent communication channel between the first processor and the second processor through the proxy server to allow

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the transfer of second messages from the second processor to the first processor, and the delivery of second message delivery acknowledges from the first processor to the second processor (*Fig. 8, col. 13, line 50 col. 14, line 44*), and

However, Masters does not explicitly disclose wherein the first HTTP-based "request" includes therein a request that the second processor transmits a reply after the expiration of the a time period even if there are no messages to send to the first processor so that the first processor can assess a status of the connection thereto.

Hesselink discloses wherein the first HTTP-based "request" includes therein a request (*Fig. 8, data embedded with the request*) that the second processor transmits a reply (*Fig. 8, box 880 to box 890*) after the expiration of the a time period even if there are no messages (*Fig. 8, box 860, NO data in buffer*) to send to the first processor so that the first processor can assess a status of the connection thereto (*Fig. 8, col. 25, line 39 – col. 27, line 2*) for the purpose of *providing the persistent connection and full duplex data communication streams between clients and servers* (Hesselink, *Fig. 8, col. 26, lines 63-67*).

Masters-Hesselink discloses receiving a first HTTP-based "reply" from the second processor to the first processor in response to the first parked HTTP-based "request" (*Masters, Fig. 8, col. 13, line 50 - col. 14, line 44*);

Masters-Hesselink discloses in response to receiving the first HTTP-based "reply", transmitting a second parked HTTP-based "request" via the proxy server to the second processor, the second parked HTTP-based "request" including an acknowledgment to the first HTTP-based "reply" in order to maintain the persistent

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HTTP connection between the first processor and the second processor through the proxy server, and wherein the second parked HTTP-based "request" includes therein a request that the second processor transmits a reply after the expiration of the a time period even if there are no messages to send to the first processor in order to ensure persistent connectivity between the first and second processor (*Hesselink, Fig. 8, col. 26, lines 63-67*).

15. As to claim 2, Masters-Hesselink discloses, wherein the first HTTP-based "request" includes at least one of the first messages (*Hesselink, data embedded in the HTTP request*) therein (*Hesselink, Fig. 8, col. 25, line 39 – col. 27, line 2*).

16. As to claim 4, Masters-Hesselink discloses wherein the first HTTP-based "replies" includes at least one of the second messages therein (*Hesselink, Fig. 8, col. 25, line 39 – col. 27, line 2*)).

17. As to claim 6, Masters-Hesselink discloses, wherein the first processor only receives the first HTTP-based "reply" from the second processor on the persistent communication channel when the second processor has at least one of the second messages to send to the first processor (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

18. As to claim 8, Masters-Hesselink discloses, setting the time period to be less than two days (*Hesselink, the time period can be settable or selectable by user process or server process*) (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

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19. As to claim 9, Masters-Hesselink discloses setting the time period to be approximately five minutes (*Hesselink, the time period can be settable or selectable by user process or server process*) (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

20. As to claim 10, Masters-Hesselink discloses, comprising dynamically adjusting the time period based upon a connection time out closure controlled by the proxy server (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

21. As to claim 11, Masters-Hesselink discloses, wherein the dynamically adjusting of the time period comprises: receiving a connection time out closure message from the proxy server; determining a first time between transmitting the second HTTP-based "request" and receiving a connection time out closure message from the proxy server; and calculating a new time period to be less than the first time and less than the time period (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

22. Claim 12 corresponds to the computer readable medium claim of claim 1; therefore it rejected under the same rationale as claim 1.

23. As to claim 13, Masters-Hesselink discloses the method comprising:
selecting by a client a connection time out period (*Hesselink, Fig. 8, box 880*)
used in order to determine a time duration in which the client is to receive a "reply" message from a server in order to ensure persistent connectivity between the client and the server (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*);

allowing the client to include the connection time out period (*Hesselink, Fig. 7, embed data, boxes 730, 740*) in a parked HTTP-based "request" sent from the client to be parked (*Hesselink, buffered*) at the server for requesting a HTTP-based "reply" from

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the server after expiration of the connection time out period even if there are no messages to send to the client in order to avoid connection termination by the proxy server due to communication inactivity (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); and

transmitting the parked HTTP-based “request” to the server via the proxy server to open a persistent connection therewith (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

24. As to claim 15, Masters-Hesselink discloses dynamically adjusting the time period based upon a connection time out closure controlled by the proxy server due to the communication inactivity (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

25. As to claim 16, Masters-Hesselink discloses receiving a connection time out closure message from the proxy server (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); upon receiving the time out closure message from the proxy, calculating a new time period from the transmitting of the HTTP-based request to the receiving of the connection time out closure message (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); reducing the connection time out period to be less than the new time period and less than a current value of the connection time out period in order to create a new connection time out period (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); including the new connection time out period in a second parked HTTP-based “request” requesting a HTTP-based “reply” from the server after the expiration of the new connection time out period even if there are no messages to send to the client in order to avoid connection termination by the proxy due to communication inactivity (*Hesselink,*

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Figs. 7, 8, col. 23, line 64 – col. 27, line 2); and transmitting the second parked HTTP-based “request” to the server via the proxy server to maintain the persistent connection therewith (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

26. As to claim 17, Masters-Hesselink discloses receiving a connection time out closure message from the proxy server indicating that the proxy server has closed the persistent connection (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); calculating a new time period from the transmitting of the HTTP-based request to the receiving of the connection time out closure message (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); and transmitting an HTTP-based request to the server via the proxy server to open a persistent connection therewith, the HTTP-based request requesting a reply from the server when the server has messages to send to the client and after the expiration of the connection time out period if there are no messages to send to the client (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

27. As to claim 18, Masters-Hesselink discloses receiving a connection time out closure message from the proxy server (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); reducing the connection time out period to form a new connection time out period shorter in duration than the connection time out period (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); and transmitting a third parked HTTP-based “request” to the server via the proxy server to open a persistent connection therewith, the third parked HTTP-based “request” requesting a reply from the server when the server has messages to send to the client and after the expiration of the new connection time out

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period if there are no messages to send to the client (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*).

28. Claim 19 corresponds to the computer readable medium claim of claim 13; therefore it rejected under the same rationale as claim 13.

29. As to claim 20, Masters-Hesselink discloses a method of transmitting unsolicited messages via a public computer network to a client residing on a private computer network, the private computer network including a proxy server, the method comprising: receiving an HTTP-based “request” originating from the client through the proxy server, wherein the HTTP-based “request” includes a first connection time out period used in order to determine a time duration in which the client is to receive a “reply” message in order to ensure persistent connectivity between the client and a server (*Masters, Fig. 8, col. 13, line 50 - col. 14, line 44*); and

parking (*Hesselink, buffering*) the HTTP-based “request” without responding thereto unless the first connection time out period expires, the parking of the HTTP-based “request” establishing a persistent connection from the client through the proxy server (*Hesselink, Figs. 7, 8, col. 23, line 64 – col. 27, line 2*); and

when the first connection time out period expires, generating an HTTP-based reply to the HTTP-based request parked for the client, the HTTP-based “reply” containing the message therein (*Hesselink, Figs. 7, 8, boxes 880-890; col. 23, line 64 – col. 27, line 2*); transmitting the HTTP-based “reply” (*Hesselink, Figs. 7, 8, box 890, col. 23, line 64 – col. 27, line 2*).

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receiving a second HTTP-based request including a message acknowledgement from the client through the proxy server acknowledging the receipt of the HTTP-based "reply" and also including a second connection time out period (*Hesselink, Figs. 7, 8, box 890, col. 23, line 64 – col. 27, line 2*); and

parking the second HTTP-based request without responding thereto unless a message is generated that needs to be transmitted to the client or unless the second connection time out period expires, the parking the second HTTP-based request maintaining the persistent connection from the client through the proxy server (*Hesselink, Figs. 7, 8, box 890, col. 23, line 64 – col. 27, line 2*).

30. As to claim 22, Masters-Hesselink discloses wherein the second connection time out period is different than the first connection time out period (*Hesselink, Figs. 7, 8, box 890, col. 23, line 64 – col. 27, line 2*).

31. Claim 23 corresponds to the computer readable medium claim of claim 20; therefore it rejected under the same rationale as claim 20.

32. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai V. Nguyen
Examiner
Art Unit 2142



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER